

Docket No.: HO-P02673US1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Michael D. Schneider et al.

Application No.: 10/820,583

Examiner: Not Yet Assigned

Filed: April 8, 2004

Art Unit: N/A

For: MODULATORS OF TELOMERE  
STABILITY

**INFORMATION DISCLOSURE STATEMENT (IDS)**

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Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of each reference on the PTO/SB/08 is attached.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-2375, under Order No. HO-P02673US1.

Dated: May 20, 2005

Respectfully submitted,

By 

Melissa W. Acosta, Ph.D.

Registration No.: 45,872

FULBRIGHT & JAWORSKI L.L.P.

Fulbright Tower

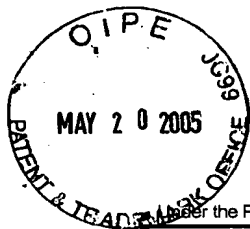
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PTO/SB/08A (10-01)

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				Application Number	10/820,583
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Sheet	1	of	3	Attorney Docket Number	HO-P02673US1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA	US-2003/0170889-A1	09-11-2003	Herron, G.S.	
	AB	US-2002/0076719-A1	06-10-2002	Lange, et al.	
	AC	US-6,472,143-B1	10-29-2002	Mikolajczyk, et al.	
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	AE	US-6,455,559-B1	09-24-2002	Pevarello, et al.	
	AF	US-6,297,356-B1	10-02-2001	DeLange, et al.	
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	AH	US-6,680,170-B2	01-20-2004	Plowman, et al.	
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	AK	US-5,187,183	02-16-1993	Loscalzo, et al.	
	AL	US-6,514,719-B1	02-04-2003	Bird, et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
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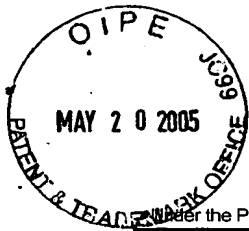
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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	Klobutcher, Lawrence A., et al.; All gene-sized DNA molecules in four species of hypotrichs have the same terminal sequence and an 3' terminus; Proc. Natl. Acad. Sci. USA, Vol. 78 (5), pp. 3015 - 3019 (1981).	
	CB	Allshire, Robin C., et al.; Letters to Nature - Telomeric repeat from <i>T. thermophila</i> cross hybridizes with human telomeres; Nature, Vol. 332, pp. 656 - 659 (1988).	
	CC	Blackburn, Elizabeth H., et al.; A Tandemly Repeated Sequence at the Termini of the Extrachromosomal Ribosomal RNA Genes in <i>Tetrahymena</i> ; J. Mol. Biol., Vol. 120, pp. 33 - 53 (1978).	
	CD	Blackburn, Elizabeth H., et al.; Identification of a Telomeric DNA Sequence in <i>Trypanosoma brucei</i> ; Cell, Vol. 36, pp. 447 - 457 (1984).	
	CE	Blackburn, Elizabeth H.; Switching and Signaling at the Telomere; Cell, Vol. 106, pp. 661 - 673 (2001).	
	CF	Bodnar, Andrea G., et al.; Extension of Life-Span by Introduction of Telomerase into Normal Human Cells; Science, New Series, Vol. 279 (5349), pp. 349 - 352 (1998).	
	CG	Brown, William R. A.; Letters to Nature - Molecular cloning of human telomeres in yeast; Nature, Vol. 338, pp. 774 - 776 (1989).	
	CH	Cross, Sally H., et al.; Letters to Nature - Cloning of human telomeres by complementation in yeast; Nature, Vol. 338, pp. 771 - 774 (1989).	

Examiner Signature		Date Considered	
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Sheet	2	of	3	Attorney Docket Number	HO-P02673US1

CI	Dan, Ippeita, et al.; The Ste20 group kinases as regulators of MAP kinase cascades; <i>TRENDS in Cell Biology</i> , Vol. 11 (5), pp. 220 - 230 (2001).	
CJ	de Lange, Titia; Protection of mamalian telomeres; <i>Oncogene</i> , Vol. 21, pp 532 - 540 (2002).	
CK	Greider, Carol W., et al.; Commentary - Tracking Telomerase; <i>Cell</i> , Vol. S116, pp. S83 - S86, (2004).	
CL	Greider, Carol W., et al.; Identification of a Specific Telomere Terminal Transferase Activity in Tetrahymena Extracts; <i>Cell</i> , Vol. 43, pp. 405 - 413 (1985).	
CM	Kubasiak, Lori A., et al. Hypoxia and acidosis activate cardiac myocyte death through the Bcl-2 family protein BNIP3; <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 99 (20), pp. 12825 - 12830 (2002).	
CN	Hahn, William C., et al.; Inhibition of telomerase limits the growth of human cancer cells; <i>Nature Medicine</i> , Vol. 5 (10), pp. 1164 - 1170 (1999).	
CO	Hirota, Hisao, et al.; Loss of a gp130 Cardiac Muscle Cell Survival Pathway is a Critical Event in the Onset of Heart Failure during Biomechanical Stress; <i>Cell</i> , Vol. 97, pp. 189 - 198 (1999).	
CP	Karlseder, Jan, et al.; p53- and ATM-Dependent Apoptosis Induced by Telomeres Lacking TRF2; <i>SCIENCE</i> , Vol. 283, pp. 1321 - 1325 (1999).	
CQ	Koh, Gou Young, et al.; Stable Fetal Cardiomyocyte Grafts in the Hearts of Dystrophic Mice and Dogs; <i>J. Clin. Invest.</i> , Vol. 96, pp. 2034 - 2042 (1995).	
CR	Lee, Han-Woong, et al.; Essential role of mouse telomerase in highly proliferative organs; <i>Nature</i> , Vol. 392, pp. 569 - 574 (1998).	
CS	Lundblad, Victoria, et al.; A Mutant with a Defect in Telomere Elongation Leads to Senescence in Yeast; <i>Cell</i> , Vol. 57, pp. 633 - 645 (1989).	
CT	MacLellan, W. Robb, et al.; Genetic Dissection of Cardiac Growth Control Pathways; <i>Annual Review of Physiology</i> , Vol 62, pp. 289 - 319 (2000).	
CU	Manning, G., et al.; The Protein Kinase Complement of the Human Genome; <i>SCIENCE</i> , Vol. 298, pp. 1912 - 1934 (2002).	
CV	McEachern, Michael J., et al.; Telomers and Their Control; <i>Annu. Rev. Genet.</i> , Vol. 34, pp. 331 - 358 (2000).	
CW	Oh, Hidemasa, et al.; Telomerase reverse transcriptase promotes cardiac muscle cell proliferation, hypertrophy, and survival; <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 98 (18), pp 10308 - 10313, August 28, 2001.	
CX	Oka, Yoshio, et al.; Inverted terminal repeat sequence in the macronuclear DNA of <i>Stylonychia pustulata</i> ; <i>Gene</i> , Vol. 10, pp. 301 - 306 (1980).	
CY	Ono, Koichiro, et al.; An Evolutionarily Conserved Motif in the TAB1 C-terminal Region Is Necessary for Interaction with and Activation of TAK1 MAPKKK; <i>The Journal of Biological Chemistry</i> , Vol. 276 (26), pp. 24396 - 24400 (2001).	
CZ	Pluta, Ann F., et al.; Recombination occurs during telomere formation in yeast; <i>Nature</i> , Vol. 337, pp. 429 - 433 (1989).	
CA1	Richards, Eric J., et al.; Isolation of a Higher Eukaryotic Telomere from <i>Arabidopsis thaliana</i> ; <i>Cell</i> , Vol. 53, pp. 127 - 136 (1988).	
CB1	Shibuya, Hiroshi, et al.; TAB1: An Activator of the TAK1 MAPKKK in TGF- $\beta$ Signal Transduction; <i>SCIENCE</i> , Vol. 272, pp. 1179 - 1182 (1996).	
CC1	Stewart, Sheila A., et al.; Senescence: does it all happen at the ends?; <i>Oncogene</i> , Vol. 21, pp. 627 - 630 (2002).	
CD1	Szostak, Jack W., et al.; Cloning Yeast Telomeres on Linear Plasmid Vectors; <i>Cell</i> , Vol. 29, pp. 245 - 255 (1982).	
CE1	Van der Ploeg, Lex H. T., et al.; Structure of the Growing Telomeres of Trypanosomes; <i>Cell</i> , Vol. 36, pp. 459 - 468 (1984).	
CF1	Weinert, Ted, et al.; Forever hopeful relations: chromatin, telomeres and checkpoints; <i>Nature Genetics</i> , Vol. 21, pp. 151 - 152 (1999).	
CG1	Wong, Kwok-Kin, et al.; Telomere dysfunction impairs DNA repair and enhances sensitivity to	

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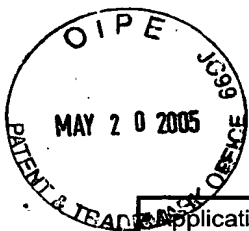
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	CH1	Yao, Zhengbin, et al.; A Novel Human STE20-related Protein Kinase, HGK, That Specifically Activates the c-Jun N-terminal Kinase Signaling Pathway; The Journal of Biological Chemistry, Vol. 274 (4), pp. 2118 - 2125 (1999).	
	CI1	Yussman, Martin G., et al.; Mitochondrial death protein Nix is induced in cardiac hypertrophy and triggers apoptotic cardiomyopathy; Nature Medicine, Vol. 8 (7), pp. 725 - 730 (2002).	
	CJ1	Zhang, Dou, et al.; TAK1 is activated in the myocardium after pressure overload and is sufficient to provoke heart failure in transgenic mice; Nature Medicine, Vol. 6 (5), pp. 556 - 563 (2000).	
	CK1	Zakian, Virginia A.; Telomeres: Beginning to Understand the End; SCIENCE, Vol. 270, pp. 1601 - 1607 (1995).	
	CL1	Zhong, Zhong, et al.; A Mammalian Factor That Binds Telomeric TTAGGG Repeats In Vitro; Molecular and Cellular Biology, Vol. 12 (11), pp. 4834 - 4843 (1992).	
	CM1	Kishimoto, Kazuya, et al.; The Journal of Biological Chemistry, Vol. 275 (10), pp. 7359 - 7369 (2000).	
	CN1	Jackson, Kathyjo A., et al.; Regeneration of ischemic cardiac muscle and vascular endothelium by adult stem cells; The Journal of Clinical Investigation, Vol. 107 (11), pp. 1395 - 1402 (2001).	
	CO1	Hemann, Michael T., et al.; Telomere Dysfunction Triggers Developmentally Regulated Germ Cell Apoptosis; Molecular Biology of the Cell, Vol. 12, pp. 2023 - 2030 (2001).	
	CP1	Grepin, Claudine, et al.; Enhanced cardiogenesis in embryonic stem cells overexpressing the GATA-4 transcription factor; Development, Vol. 124, pp. 2387 - 2395 (1997).	
	CQ1	Chang, Sandy, et al.; Commentary - Telomerase extracellular activities; Proc. Natl. Acad. Sci. USA, Vol. 99 (20), pp. 12520 - 12522 (2002).	
	CR1	Wright, Jocelyn H., et al.; The STE20 Kinase HGK Is Broadly Expressed in Human Tumor Cells and Can Modulate Cellular Transformation, Invasion, and Adhesion; Molecular and Cellular Biology, Vol. 23 (6), pp. 2068 - 2082 (2003).	
	CS1	Prowse, Karen R., et al.; Developmental and tissue-specific regulation of mouse telomerase and telomere length; Proc. Natl. Acad. Sci. USA, Vol. 92, pp. 4818 - 4822 (1995).	
	CT1	Reed, John C., et al.; Commentary - Postmitochondrial regulation of apoptosis during heart failure; Proc. Natl. Acad. Sci. USA, Vol. 96, pp. 7614 - 7616 (1999).	
	CU1	Sadoshima, Junichi, et al.; The MEKK1-JNK pathway plays a protective role in pressure overload but does not mediate cardiac hypertrophy; J. Clin. Invest., Vol. 110, pp. 271 - 279 (2002).	
	CV1	Pasumarthi, Kishore B.S., et al.; Cardiomyocyte Cell Cycle Regulation; Circ Res., Vol. 90, pp. 1044 - 1054 (2002).	
	CW1	Moyzis, Robert K., et al.; A highly conserved repetitive DNA sequence, (TTAGGG) <sub>n</sub> , present at the telomeres of human chromosomes; Proc. Natl. Acad. Sci. USA, Vol. 85, pp. 6622 - 6626 (1988).	

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